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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,858	01/13/2002	Steven Teig	SPLX.P0124	6767
7590 12/16/2004			EXAMINER	
MANI ADELI ESQ STATTLE JOHANSEN & ADELI LLP PO BOX 51860 PALO ALTO, CA 94303-0728			GARBOWSKI, LEIGH M	
			ART UNIT	PAPER NUMBER
			2825	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,858

Applicant(s)

TEIG ET AL.

Examiner

Leigh Marie Garbowski

Art Unit

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pm

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 44 sheets 3/26/03, 7/15/03, 11/17/03, 8/20/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Objections

Claims 3, 8, 10, 13, 21 are objected to because of the following informalities: as per claims 3, 8, 10, 13, the use of the same letters to denote further steps is confusing; as per claim 8, "routing" [line 1] should be changed to --wiring-- to clarify antecedent basis; as per claim 10, using a letter to denote a wherein clause is confusing; as per claim 21, "attributed" [line 7] is confusing and --(iv)-- should be inserted before the fourth further step of "identifying" [line 11]. Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5, 8-11, 13, 16-18, 21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6,826,737 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the application and patent are claiming similar subject matter.

Claims 1-5, 8-9, 11-13, 16-18, 21-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable

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over claims 9, 11, 13, 43-51, 55, 57, 61, 88-89, 91-92, 96 of copending Application No. 09/731,891. Although the conflicting claims are not identical, they are not patentably distinct from each other because the applications are claiming similar subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1, 3, 5, 12, 13, what is meant by "during routing" is not clear because although the preamble of claim 1 presents the use of a wiring model that includes diagonal wiring directions [lines 1-2], the claim does not set forth any steps involved in the "during routing" method/process, thus it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

As per claims 1, 3, taking claim 1 as exemplary, step "c)" [line 8] is vague, it is not clear what identifying a placement cost is with particular respect to, "circuit modules" or "nets" or "circuit elements"? Although costs are identified as computed from nets in step "b)" [lines 6-7], there appears to be a gap in the subject matter defining "a method of placing" [line 2] and "computing" and "identifying" costs.

Furthermore as per claim 1, the preamble sets out "a method of placing circuit modules" however, the body of the claim appears incomplete in this respect. Thus, the claim is vague and confusing.

As per claims 5, 18, what is meant by "each net represents a set of circuit elements" is confusing; it is not clear how a net can represent a circuit element considering that a net and a circuit element are two different things.

As per claims 6-7, a linear/non-linear relationship of what is not apparent.

As per claims 9, 17, taking claim 9 as exemplary, what is meant by "identifying the length of the connection graph" is not clear considering that it is an edge attribute of a connection graph that typically defines length. Thus, the claims are vague and indefinite.

As per claim 10, the antecedent basis for "interconnect lines" [line 6] is unclear, thus what is meant by this feature with respect to the term "net" that has already been established is confusing.

As per claim 11, there is no antecedent basis for "placement metric" [line 1], thus what is meant by the claim is not particularly clear.

As per claim 12, there is no antecedent basis for "router's" [line 2], thus what is meant by the claim is not particularly clear.

As per claim 13, what is meant by "computing a delay cost" "after said modification" is not clear because the previous step modifies the position of a "circuit module"; the "delay cost" is computed for nets and the relationship of circuit modules to nets has not been established.

As per claim 14, the claim provides for the use of a router, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

As per claim 16, the preamble sets out "a method for computing placement costs" however, the body of the claim appears incomplete in this respect. It is not clear how any of the features recited are so related, it is not clear what "identifying a delay cost" is with particular respect to in terms of the features within a circuit layout, thus the claim is confusing, vague and indefinite.

As per claim 18, what is meant by the first wherein clause [lines 1-2] is confusing with respect to the method intended to be established in the preamble of claim 1. Also, what is meant by "placement cost for the net" is confusing, it is not clear that nets but circuit elements are to be placed, considering that nets are typically routed and circuit elements are placed. Thus, the claim is confusing.

The remaining claims, though not specifically mentioned, are rejected for incorporating the errors of their respective base claims by dependency.

The following rejections are based on the examiner's best interpretation of the claims in view of the issues raised above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9, 11-12, 14-15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Malm et al. [U.S. Patent #5,673,201].

Claims 1-7, 9, 11-12, 14-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Linsker [U.S. Patent #4,615,011].


Claims 1-7, 9-22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rostoker et al. [U.S. Patent #5,822,214].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh Marie Garbowski whose telephone number is 571-272-1893. The examiner can normally be reached on days.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


LEIGH M. GARBOWSKI
PRIMARY EXAMINER